INDEX

FIBRE CHEMISTRY

Volume 37, Numbers 1–6, 2005

FIBRE CHEMISTRY
Volume 37, Numbers 1-6, 2005
(A translation of *Khimicheskie Volokna*)

A
Abronin, I. A. – 11
Afonicheva, O. V. – 213
Aizenshtein, E. M. – 73, 159, 307, 401, 459, 490
Albulov, A. I. – 22
Alekseeva, L.V. – 63
Andreeva, I. V. – 346
Andrianova, G. P. – 202, 297
Anikin, V. A. – 41
Antonova, M. D. – 469
Apostolov , S. P. – 150
Arlamova, N. T. – 218
B
Babak, V. G. – 483
Babievskii, K. K. – 483
Baeva, N. N. – 54
Baranov, O. V. – 101
Barantsev, V. M. – 38, 41
Baskov, P. B. – 97
Basok, M. O. – 196
Bikkullova, A. R. – 11
Bodyalo, N. N. – 154
Bogushevich, S. E. – 208
Bokova, E. S. – 202, 297
Bonartseva, G. A. – 441
Bronnikov, S. V. – 300
Budnitskii, G. A. – 327
Burya, A. I. – 218
Butylkina, N. G. – 192
Buyaev, D. I. – 213
Bychkov, R. A. – 213
Bykova, L. N. – 101
C
Chalaya, N. E. – 89
Chalenko, A. A. – 181
Chapurina, M. A. – 81
Cherkasova, N. G. – 218
Chernukhina, A. I. – 285
Chernyaeva, G. A. – 187
Chernyshenko, A. O. – 431
Chmel', A. E. – 319
Chukalovskii, P. A. – 213
Chvyrev, A. V. – 41
D
Davydova, G. A. – 35
Dedov, A. V. – 202, 205, 297
Degtyarev, S. V. – 38, 41
Denisova, G. P. – 150
Dobrovol'skaya, I. P. – 300
Druzhinina, T. V. – 11
Dubankova, N. P. – 38
Dutikova, O. S. – 192
E
Efimova, N. V. – 469
Efremov, G. I. – 67
Engibaryan, L. G. – 285
F
Fateeva, S. D. – 297
Fedorov, M. B. – 441
Firsov, A. V. – 116
Fomin, V. N. – 35
G
Gabrielyan, G. A. – 285
Galitsyn, V. P. – 319
Gal'braikh, L. S. – 5, 18, 81, 272, 285, 338, 431, 437, 441, 447, 452
Gankov, N. P. – 144, 176, 199, 282
Gert, E. V. – 485
Gladkov, A. N. – 18
Golikova, A. Yu. – 319
Gorbacheva, I. N. – 431
Gorshkov, A. S. – 289
Gorchakova, V. M. – 35
Grukova, O. P. – 84
I
Igumnov, S. M. – 81
Irklei, V. M. – 447, 452
Isakovich, O. I. – 208
Ivanov, A. P. – 109
K
Kadochnikov, V. M. – 227
Kalabin, A. L. – 141, 315, 367
Kalmychkova, O. Yu. – 332
Kaputskii, F. N. – 485
Katina, A. A. – 304
Kazakov, M. E. – 218
Kazantseva, I. L. – 181
Khammatova, V. V. – 293
Khizhnyak, S. D. – 319
Kil'deeva, N. R. – 22, 101, 437, 441
Kiselev, V. I. – 363
Kleiner, Yu. Ya. – 447, 452
Kobrakov, K. I. – 84
Kogan, A. G. – 154
Konovalova, M. V. – 93
Konstantinova, N. I. – 192
Koroteeva, L. I. – 304
Koval'skii, K. A. – 101
Krasnov, A. P. – 213
Kravchuk, L. S. – 208
Krayukhina, M. A. – 483
Krivobokov, D. E. – 230
Kruglova, S. V. – 97
Krylov, A. L. – 319
Kudryavin, L. A. – 119
Kulichenko, A. V. – 371
Kuznetsov, V. V. – 213
L
Lysenko, G. N. – 208
M
Makarova, R. A. – 196, 346
Maksareva, E. Yu. – 81
Malan'ina, O. B. – 196, 346
Malyshev, A. N. – 18
Malyukova, E. B. – 35
Mamagulashvili, V. G. – 187
Manyukov, E. A. – 54
Marakhovskaya, M. L. – 218
Masanov, D. V. – 105
Maslikova, A. N. – 441
Mazurik, D. V. – 113
Medichenko, S. V. – 332
Medvedev, V. A. – 327
Mironov, A. V. – 22
Motavkin, A. V. – 26, 31
Movchan, T. G. – 272
N
Naganovskii, Yu. K. – 192

Narinyan, K. E. – 81
Neborako, O. Yu. – 84, 101
Nemov, D. N. – 144
Nikolaev, S. D. – 1, 355
O
Oprits, Z. G. – 196, 346
Osipenko, N. A. – 227
P
Paemurd, E. S. – 332
Pakhomov, P. M. – 319
Pakshver, E. A. – 315, 346
Pavlov, N. N. – 38, 41
Perepelkin, K. E. – 123, 196, 241, 300, 346, 381, 417
Platonov, V. A. – 54
Platova, T. E. – 38
Pokrovskii, E. M. – 26, 31
Polevoi, A. B. – 230
Polevov, V. N. – 187
Popovich, V. A. – 35
Pupyshev, I. D. – 230
R
Radenkov, F. D. – 144, 176 199, 282
Radenkov, M. F. – 176, 199, 282
Radishevskii, M. B. – 266, 327
Radkevich, V. Z. – 208
Raimer , D. – 276
Ramazaeva, L. F. – 150
Rezanova, N. M. – 261
Redina, L. V. – 81, 272
Rodionov, V. A. – 44, 48, 51, 113
Romankevich, O. V. – 227
Romanova, A. A. – 289
Rumyantsev, Yu. D. – 97
Ryabinin, S. E. – 363
Rymkevich, P. P. – 289
S
Sadova, S. F. – 54
Safonov, V. V. – 89
Sakhnik, M. V. – 48
Sakharov, V. V. – 97
Savchenko, L. I. – 18
Savel'eva, E. K. – 202
Sebina, L. P. – 105
Sedelkin, V. M. – 150
Serkov, A. T. – 222, 266, 327
Shablygin, M. M. – 109
Shepelev, A. D. – 187
Shevchenko, N. K. – 35
Shkurenko, S. I. – 465, 469
Shustov, E. Yu. – 119
Shustov, Yu. S. – 119
Skorodumov, V. F. – 26, 31
Sletkina, L. S. – 81, 272
Sokolovskaya, T. S. – 59
Stalevich, A. M. – 289
Stankevich, G. S. – 84
Stepnova, E. A. – 483
Strashnov, A. Yu. – 116
Surkova, A. N. – 150
T
Tarakanov, B. M. – 300
Tikhonov, V. E. – 483
Timofeev, V. A. – 213
Titova, L. V. – 332
Torgashov, V. I. – 485
Tovmash, A. V. – 187
Trofimenko, M. N. – 51
Tsebrenko, M. V. – 261
U
Ustinova, T. P. – 473
V
Vavrinyuk, O. S. – 447, 452
Vedeneeva, I. V. – 272
Vedenina, O. L. – 22
Vereshchaka, T. Yu. – 300
Vikhoreva, G. A. – 22, 431, 437, 441
Y
Yamskov, I. A. – 483
Z
Zhbankov, R. G. – 478
Zhukovskii, V. A. – 352
Zlatoustova, L. A. – 327
Zubets, O. V. – 485
Zubkova, N. S. – 192

FIBRE CHEMISTRY
Volume 37, Numbers 1-6, 2005
(A translation of *Khimicheskie Volokna*)

Volume 37, Number 1, January-February, 2005

A. N. KOSYGIN MOSCOW STATE TEXTILE UNIVERSITY - 85 YEARS – S. D. Nikolaev 1 3
The Department of Chemical Fibre Engineering — 75 – L. S. Gal'braikh 5 6
Characteristics of Heterophase Radical Graft Polymerization of Methyl Methacrylate on Polymer Fibres – A. R. Bikkullova, T. V. Druzhinina, and I. A. Abronin 11 19
Estimation of The Viscosity Properties of Solutions of Aromatic Copolyamides – A. N. Gladkov, L. I. Savchenko, A. N. Malyshev, and L. S. Gal'braikh 18 24
Manufacture of Granulated Chitosan – A. V. Mironov, O. L. Vedenina, G. A. Vikhoreva, N. R. Kil'deeva, and A. I. Albulov 22 26
Thermodynamics of Melting of Polymers at High Pressures – V. F. Skorodumov, E. M. Pokrovskii, and A. V. Motavkin 26 29
Determination of the Melting Point and Glass Transition Temperature of Polymers with the Lattice Model – V. F. Skorodumov, A. V. Motavkin, and E. M. Pokrovskii 31 33
Effect of Vibration Wave Treatment of an Impregnation Composition on the Properties of Nonwoven Material – E. B. Malyukova, V. M. Gorchakova, V. N. Fomin, N. K. Shevchenko, G. A. Davydova, and V. A. Popovich 35 35
The Nature of the Reaction of Chromium(III) Complexes with Poly(Ethylene Terephthalate) Fibres – V. M. Barantsev, S. V. Degtyarev, N. P. Dubankova, T. E. Platova, and N. N. Pavlov 38 38
Activation of Synthetic Fibres with Transition Metal Salts in Dyeing with Anionic Dyes – V. M. Barantsev, V. A. Anikin, S. V. Degtyarev, A. V. Chvyrev, and N. N. Pavlov 41 40
Properties of Textured Yarns of Low Linear Density by Commercial Package Layers – V. A. Rodionov 44 42
Effect of Moisture on the Breaking Characteristics of Polypropylene Twisted Thread – M. V. Sakhnik and V. A. Rodionov 48 46
Optimization of the Structure of Cord-Braiding Articles – M. N. Trofimenko and V. A. Rodionov 51 48
Study of Dyeing of Thermostable Para/Meta-Aramid Fibre – E. A. Manyukov, S. F. Sadova, N. N. Baeva, and V. A. Platonov 54 50
Measurement of the Thermal Conductivity Coefficient of Textile Materials by the Regular Cooling Regime Method – T. S. Sokolovskaya 59 54
Mathematical Description of the Electrostatic State of Chemical Fibres with Consideration of the Forms of Intermolecular and Interfibre Interactions – L.V. Alekseeva 63 56
Calculation of the Effective Diffusion Coefficient in Drying of Polymers, Fibres, and Composite Materials with a Quasistationary Method – G. I. Efremov 67 59

Polyesters — Problems And Basic Trends Based on The Proceedings of the 12th International Seminar on Polyesters in Monte-Carlo – E. M. Aizenshtein 73 62

Volume 37, Number 2, March-April, 2005

A. N. KOSYGIN MOSCOW STATE TEXTILE UNIVERSITY — 85 YEARS

New Fluorine-Containing Polymers for Modification of the Surface Properties of Chemical Fibres – M. A. Chapurina, L. S. Gal'braikh, L. V. Redina, L. S. Sletkina, S. M. Igumnov, E. Yu. Maksareva, and K. E. Narinyan 81 3

The Search for Effective New Dyes for Chemical Fibres – K. I. Kobrakov, G. S. Stankevich, O. Yu. Neborako, and O. P. Grukova 84 5

Affinity of Direct Dyes for Cellulose Film – N. E. Chalaya and V. V. Safonov 89 10

Magnetic Activation of Water in Alkali Treatment of Polyester Fibre Materials – M. V. Konovalova 93 13

Dynamics of Heating of Fluoride Stock in Manufacture of Optical Fibres – S. V. Kruglova, Yu. D. Rumyantsev, V. V. Sakharov, and P. B. Baskov 97 16

Method of Determining the Copper(II) Ion Content in Process Solutions – A. A. Neborako, O. V. Baranov, K. A. Koval'skii, L. N. Bykova, and N. R. Kil'deeva 101 19

Automatic Diagnosis of Texturing – D. V. Masanov and L. P. Sebina 105 22

Internal Standardization of Spectral Measurements to Minimize Errors in Quantitative and Structural Analysis of Monomer and Polymer Systems. Automation of the Method – M. M. Shablygin and A. P. Ivanov 109 27

Development of Rational Technology for Manufacture of Arselon Sewing Thread – D. V. Mazurik and V. A. Rodionov 113 30

A Modular System for Multivariant Fabric Design – A. V. Firsov and A. Yu. Strashnov 116 32

Mathematical Determination of Thread Length in the Knit Loop – E. Yu. Shustov, L. A. Kudryavin, and Yu. S. Shustov 119 34

CHEMISTRY AND TECHNOLOGY OF CHEMICAL FIBRES

Principles And Methods of Modification of Fibres and Fibre Materials. A Review – K. E. Perepelkin 123 37

Analytical Calculation of Kinematic and Thermal Parameters of Fibres in Spinning from Polymer Melts – A. L. Kalabin 141 52

Copper-Containing Complexes — Effective Quality Stabilizers for Caprolactam – N. P. Gankov, D. N. Nemov, and F. D. Radenkov 144 54

MATERIALS SCIENCE

Effect of the Kinetics of Evaporation of Solvent on the Performance Characteristics of Ultrafiltration Membranes Made of Secondary Cellulose Acetate – V. M. Sedelkin, L. F. Ramazaeva, G. P. Denisova, A. N. Surkova, and S. P. Apostolov 150 58

Fabrication of Composite Sewing Thread Using Polyester Microfibres – N. N. Bodyalo and A. G. Kogan 154 62

Volume 37, Number 3, May - June, 2005

PRICES OF PETROCHEMICAL RAW MATERIALS AND SYNTHETIC FIBRES AND YARN IN THE SECOND HALF OF 2004 – E. M. Aizenshtein 159 5

CHEMISTRY AND TECHNOLOGY OF CHEMICAL FIBRES

Copper-Containing Complexes — Effective Thermal and Light Stabilizers for Polycaproamide Fibres – N. P. Gankov, F. D. Radenkov, and M. F. Radenkov 176 20

Analysis of the Market for Modern Oiling Agents for Polyamide Textile Fibres – A. A. Chalenko and I. L. Kazantseva 181 24

Fabrication of Sorption-Filtering Nonwoven Material from Ultrafine Polyvinyl Alcohol Carbonized Fibres by Electrospinning – A. V. Tovmash, V. N. Polevov, V. G. Mamagulashvili, G. A. Chernyaeva, and A. D. Shepelev 187 29

MATERIALS SCIENCE

Flameproofing Properties of Phosphorus-Containing Polyester Materials – O. S. Dutikova, N. S. Zubkova, N. G. Butylkina, N. I. Konstantinova, and Yu. K. Naganovskii 192 33

Thermal Degradation of Thermostable Aromatic Fibres in Air and Nitrogen Medium – K. E. Perepelkin, O. B. Malan'ina, M. O. Basok, R. A. Makarova, and Z. G. Oprits 196 36

Effect of Copper-Containing Thermal Stabilizers on the Performance Properties of Vidlon Polycaproamide Cord Fibres – N. P. Gankov, F. D. Radenkov, and M. F. Radenkov 199 39

Pore Structure of Heat-Treated Nonwoven Materials – E. K. Savel'eva, A. V. Dedov, E. S. Bokova, and G. P. Andrianova 202 41

Formation of the Pore Structure of Needle-Punch Materials – A. V. Dedov 205 43

Effect of Chromium Ions on Degradation of Fiban K-1 Fibrous Sulfo Cation-Exchanger – L. S. Kravchuk, G. N. Lysenko, S. E. Bogushevich, V. Z. Radkevich, and O. I. Isakovich 208 45

FIBRE COMPOSITE MATERIALS

Thermophysical and Tribological Properties of Composite Materials Reinforced with Polyoxadiazole Fibres – V. A. Timofeev, A. P. Krasnov, R. A. Bychkov, D. I. Buyaev, P. A. Chukalovskii, O. V. Afonicheva, and V. V. Kuznetsov 213 50

Properties of Phenocarbon Plastics Based on Uvis Carbon Fabric – A. I. Burya, N. G. Cherkasova, M. E. Kazakov, N. T. Arlamova, and M. L. Marakhovskaya 218 54

PHYSICAL CHEMISTRY OF FIBRE-FORMING POLYMERS

Quantitative Expression of the Mendeleev Periodic Law – A. T. Serkov 222 57

Surface Tension and the Gibbs Approach – O. V. Romankevich, N. A. Osipenko, and V. M. Kadochnikov 227 60

PRODUCTION CONTROL

Information Content of the Random Process Signal – I. D. Pupyshev, A. B. Polevoi, and D. E. Krivobokov 230 62

WE CONGRATULATE YOU ON YOUR BIRTHDAY! 238 69

Volume 37, Number 4, July-August, 2005

POLYMERIC FIBRE COMPOSITES, FUNDAMENTAL TYPES, PRINCIPLES OF MANUFACTURE, AND PROPERTIES. Part 1. Basic Components of Fibre Composites, Interaction and Reciprocal Effect – K. E. Perepelkin 241 7

CHEMISTRY AND TECHNOLOGY OF CHEMICAL FIBRES

Specific Fibre Formation in Flow of Melts of Polypropylene/Copolyamide Blends in the Phase Change Region – E. P. Kuvaeva, M. V. Tsebrenko, and N. M. Rezanova 261 23

Coagulation Mechanism in Wet Spinning of Fibres – M. B. Radishevskii and A. T. Serkov 266 23

Effect of the Composite of Polyfluoroalkyl Acrylate Latex Composites on the Wettability of Modified Fibre Materials – I. V. Vedeneeva, L. S. Gal'braikh, L. V. Redina, L. S. Sletkina, and T. G. Movchan 272 31

Recent Advances in Production of High-Quality Polyamide 6 Fibres – D. Raimer 276 34

Degradation Processes in Production of Vidlon Polycaproamide Cord Thread – N. P. Gankov, F. D. Radenkov, and M. F. Radenkov 282 39

Fabrication of New Water-Soluble Chitosan Derivatives – L. G. Engibaryan, A. I. Chernukhina, G. A. Gabrielyan, and L. S. Gal'braikh 285 41

MATERIALS SCIENCE

Dynamic Relaxation of Synthetic Fibres – A. A. Romanova, P. P. Rymkevich, A. S. Gorshkov, and A. M. Stalevich 289 44

Effect of High-Frequency Capacitive Discharge Plasma on the Structure and Properties of Flax and Lavsan Materials – V. V. Khammatova 293 47

Fleecy Nonwoven Material with Durable Fleece – S. D. Fateeva, E. S. Bokova, A. V. Dedov, and G. P. Andrianova 297 50

FIBRE COMPOSITE MATERIALS

Physicomechanical Properties of Carbon-Containing Film Composite Materials – I. P. Dobrovol'skaya, T. Yu. Vereshchaka, S. V. Bronnikov, K. E. Perepelkin, and B. M. Tarakanov 300 52

MACHINES AND EQUIPMENT

On Pack Formation in Winding of Mineral Fibres – L. I. Koroteeva and A. A. Katina 304 55

NONWOVEN MATERIALS: PRODUCTION AND USE. Based on Materials from the International Show and Scientific Conference on Nonwoven Materials in Geneva – E. M. Aizenshtein 307 58

Volume 37, Number 5, September-October, 2005

FIBRE MATERIALS OF THE 21st CENTURY

Gelation in Spinning Chemical Fibres from Solutions of Polymers – E. A. Pakshver and A. L. Kalabin 315 3

Structural Transitions in Manufacture of High-Strength Polyethylene Fibres by the Gel-Technology Method – P. M. Pakhomov, V. P. Galitsyn, A. L. Krylov, S. D. Khizhnyak, A. Yu. Golikova, and A. E. Chmel' 319 6

Improvement of Manufacturing Technology for Ultrastrong and High-Modulus Carbon Fibres – M. B. Radishevskii, A. T. Serkov, G. A. Budnitskii, V. A. Medvedev, and L. A. Zlatoustova 327 11
High-Melting Oxide Fibres: Fabrication, Properties, and Use – L. V. Titova, E. S. Paemurd, S. V. Medichenko, and O. Yu. Kalmychkova 332 16
Modified Fibre and Film Materials – L. S. Gal'braikh 338 21
Thermal Characteristics of High-Strength and Thermostable Aromatic Fibres – K. E. Perepelkin, E. A. Pakshver, I. V. Andreeva, O. B. Malan'ina, R. A. Makarova, and Z. G. Oprits 346 27
Current Status and Prospects for Development and Production of Biologically Active Fibre Materials for Medical Applications – V. A. Zhukovskii 352 32
Development of an Automated Design Method for Manufacture of Fabrics of Defined Structure – S. D. Nikolaev 355 35
Current Methods of Assessing the Properties of Fibres and Fibre Materials – V. I. Kiselev and S. E. Ryabinin 363 41
Analysis and Estimation of the Fundamental Kinematic and Thermal Parameters in Spinning Fibres from Polymer Melts – A. L. Kalabin 367 44
Theoretical Analysis, Calculation, and Prediction of the Air Permeability of Textiles – A. V. Kulichenko 371 47

POLYMER FIBRE COMPOSITES, BASIC TYPES, PRINCIPLES OF MANUFACTURE, AND PROPERTIES. Part 2. FABRICATION AND PROPERTIES OF POLYMER COMPOSITE MATERIALS – K. E. Perepelkin 381 54

PRODUCTION OF CHEMICAL FIBRES AND FILAMENTS IN 2004 IN THE WORLD AND IN RUSSIA — MOVING IN DIFFERENT DIRECTIONS – E. M. Aizenshtein 401 70

Volume 37, Number 6, November-December, 2005

MEMORIAL CONFERENCE DEDICATED TO THE 100TH BIRTHDAY OF Z. A. ROGOVIN
Polymeric Materials of the Future Based on Renewable Plant Resources and Biotechnologies: Fibres, Films, Plastics – K. E. Perepelkin 417 5
Advances in the Department of Chemical Fibre Technology in Modification of Chitin and Chitosan – G. A. Vikhoreva, L. S. Gal'braikh, I. N. Gorbacheva, and A. O. Chernyshenko 431 16
Fabrication of Materials for Medical Applications from Solutions of Biocompatible Polymers – N. R. Kil'deeva, L. S. Gal'braikh, and G. A. Vikhoreva 437 21
Modeling of Surface Modification of Sewing Thread – M. B. Fedorov, G. A. Vikhoreva, N. R. Kil'deeva, A. N. Maslikova, G. A. Bonartseva, and L. S. Gal'braikh 441 24
Effect of the Conditions of Spinning Viscose Textile Fibres on Their Properties – V. M. Irklei, Yu. Ya. Kleiner, O. S. Vavrinyuk, and L. S. Gal'braikh 447 28
Kinetics of Degradation of Cellulose in Basic Medium – V. M. Irklei, Yu. Ya. Kleiner, O. S. Vavrinyuk, and L. S. Gal'braikh 452 32
Physical and Chemical Modification of Polyester Fibres and Filaments to Improve the Consumer Properties of the Finished Articles – E. M. Aizenshtein 459 37
Biologically Active Synthetic Fibres and Materials of the New Generation – S. I. Shkurenko 465 43

Synthetic Polymeric Materials for Ophthalmology – N. V. Efimova, M. D. Antonova, and S. I. Shkurenko 469 46
Intentional Regulation of the Structure and Properties of Cation-Exchange Fibre Composites Based on Polypropylene Fibres – T. P. Ustinova 473 50
Z. A. Rogovin and the Development of Research in the Spectroscopy and Conformations of Polysaccharides – R. G. Zhbankov 478 53
Biologically Active Amphiphilic Derivatives of Chitosan – E. A. Stepnova, V. E. Tikhonov, V. G. Babak, M. A. Krayukhina, K. K. Babievskii, and I. A. Yamskov 483 57
Hydrogels for Medical Applications Fabricated by Oxidative–Hydrolytic Modification of Cellulose – F. N. Kaputskii, E. V. Gert, V. I. Torgashov, and O. V. Zubets 485 59

THE PRICE SITUATION IN THE FIRST SIX MONTHS OF 2005 FOR SYNTHETIC FIBRES AND FILAMENTS AND THE PETROCHEMICAL RAW MATERIALS FOR THEIR MANUFACTURE – E. M. Aizenshtein 490 63

INDEX
Author Index, Volume 37, Number 1-6, 2005 505
Tables of Contents, Volume 37, Number 1-6, 2005 509